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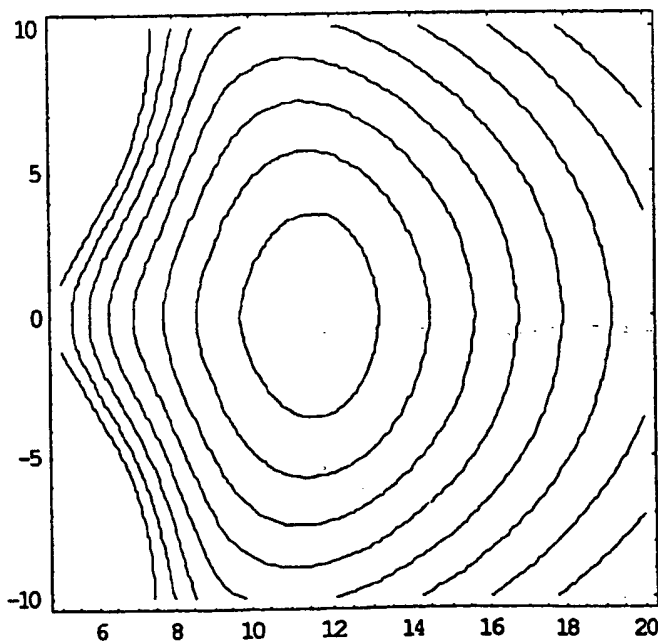
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(54) Title: **CHARGED PARTICLE MANIPULATION**



(57) Abstract: Methods and apparatus are provided for manipulating the phase space of at least one charged particle, wherein a combination of alternating current and direct current voltages applied to an electrode forms a potential which provides a region of phase space manipulation, and wherein the at least one charged particle is situated to one side of the electrode surface. A number of applications are applicable, which include a spot trap, a conveyor belt, a funnel, and ways of holding different types of particles at different distances from an array so that they can be manipulated.



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